

WHAT IS CLAIMED IS

1. A floating support structure for a CD changer, comprising:

a first mounting plate mounted on a first side of the CD changer and a second mounting plate mounted on a second side of the CD changer opposite the first side, wherein the CD changer has an opening in a front surface for insertion and withdrawal of a CD;

first and second base plates fixed to a vehicle body and disposed, respectively, on opposite sides of the CD changer, wherein the first and second mounting plates are supported on the first and second base plates, respectively, in a floating manner;

a first inner support plate disposed between the first mounting plate and the first base plate, and a second inner support plate disposed between the second mounting plate and the second base plate;

a first set of dampers, wherein the first and second mounting plates and the first and second inner support plates are connected to each other, respectively, by the first set of dampers at two front points and two rear points relative to a traveling direction of the vehicle body, wherein the first set of dampers buffer displacement of the first and second mounting plates within a vertical plane relative to first and second inner support plates;

a first outer support plate disposed between the first inner support plate and the first base plate, and a second outer support plate disposed between the second inner support plate and the second base plate, wherein the first and second outer support plates are also supported on the first and second base plates, respectively;

a second set of dampers, wherein the first and second inner support plates and the first and second outer support plates are connected to each other at two front points and two rear two points relative to the traveling direction of the vehicle body, wherein the second set of dampers buffer displacement of the inner support plates within a vertical plane relative to the outer support plates; and

a plurality of suspended springs mounted between the first outer support plate and the first mounting plate and between the second outer support plate and the second mounting plate, wherein the plurality of suspended springs exert spring force which counteracts a weight of the CD changer.

2. The floating support structure according to claim 1, wherein the first and second mounting plates are mounted to the CD changer by screws.

3. The floating support structure according to claim 1, wherein the an upper portion of each of the first and second inner support plates are connected by connecting plates spaced longitudinally apart from each other to maintain a constant distance between the first and second inner support plates.

4. The floating support structure according to claim 1, wherein the first and second outer support plates have an L-shaped cross-sectional shape which defines first and second mounting jaws, respectively, wherein the first and second mounting jaws are mounted on the first and second base plates, respectively, and are connected to each other by a first set of connecting plates which are spaced apart from each other.

5. The floating support structure according to claim 1, further comprising first and second vertically extending longitudinal frame plates, wherein upper portions of the first and second longitudinal frame plates are fastened to longitudinally intermediate portions of the first and second outer support plates, respectively.

6. The floating support structure according to claim 5, further comprising first and second longitudinally extending transverse frame plates, each having an L-shape in cross-section, wherein intermediate portions of the first and second transverse frame plates are secured to lower portions of the first and second longitudinal frame plates, and wherein the first and second transverse frame plates are connected to each other at longitudinally opposite ends by a second set of connecting plates.

7. The floating support structure according to claim 6, further comprising a support frame which supports the CD changer in a floating manner, wherein the support frame includes the first and second outer support plates, the

first and second set of connecting plates, the first and second longitudinal frame plates, and the first and second transverse frame plates.

8. The floating support structure according to claim 7, further comprising a plurality of elastic members disposed between the first and second set of connecting plates and the CD changer.